

### **Abstract**

A preferred embodiment comprises a system and method for creating and using a regional Internet-service network installed atop an existing wire radio-transmission network. The

- 5 preferred embodiment is able to provide broadband access to integrated telecommunication services for a high number of users simultaneously at a high data rate. Such an Internetwork solution ensures quality service for a wide-range of Internet/intranet applications. Such applications include traditional data transfer; real-time control; multimedia and interactive collaboration supported by efficient management of bandwidth and buffering resources;
- 10 multiple service classes (i.e., persons receiving access to the network at varying speeds and bandwidths); admission control; flexible resource allocation; and explicit price-performance control. A preferred system comprises an overall network structure with individual users and LANs, interconnected by local and regional backbones into a substantive network that utilizes IP protocols accessed to the Internet.

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